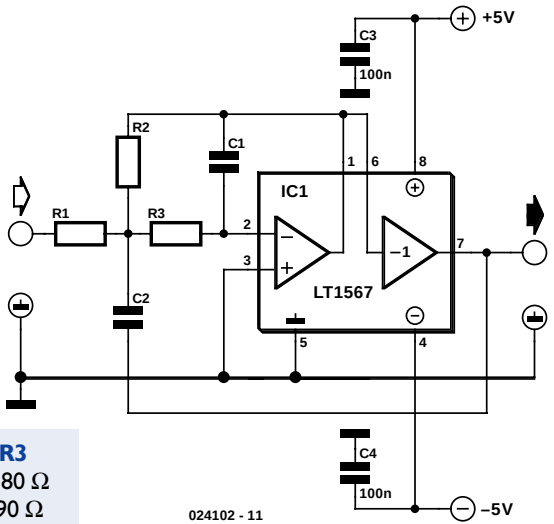
# 5 MHz Active Lowpass Filter 015

In the LT1567 Linear Technology (www.linear-tech.com/pdf/1567i.pdf) has produced a component specially developed for building analogue filters with cutoff frequencies up to 5 MHz. It contains two wide-bandwidth operational amplifiers, the second of which has a fixed configuration as an inverting amplifier with unity gain. To construct a lowpass filter just two external capacitors and three resistors are required.
Example component values for corner frequencies of 1 MHz, 2 MHz, and 5 MHz are shown in the table.

(024102-1)




| Filter | C1 | C2 | R1, R2 | R3 |
|---|---|---|---|---|
| Chebyschev 0.1 dB ripple, 1 MHz | 120 pF | 180 pF | 1050 Ω | 1180 Ω |
| Chebyschev 0.1 dB ripple, 2 MHz | 120 pF | 180 pF | 523 Ω | 590 Ω |
| Chebyschev 0.1 dB ripple, 5 MHz | 120 pF | 180 pF | 205 Ω | 232 Ω |
| Butterworth, 2 MHz | 180 pF | 180 pF | 604 Ω | 309Ω |